

AMENDMENTS TO THE CLAIMS

Claims 1-4 (Canceled)

Claim 5 (Currently Amended): A method for producing a ceramic sheet, the method comprising steps of:

sandwiching a first green sheet between spacers;

baking the first green sheet while the first green sheet is sandwiched between the spacers; and

producing a ceramic sheet having not more than 5 defects in an area of 900 mm² from the first green sheet, wherein

prior to the baking each of the spacers is ~~a either a second green sheet or~~ a calcined sheet ~~each~~ comprising spherical ceramic particles having an average particle diameter of 0.1 to less than 5 µm as a main component.

Claim 6 (Previously Presented): The method according to claim 5, wherein the content of the spherical ceramic particles is 80 wt% or larger with respect to the weight of the total ceramics contained in each of the spacers.

Claim 7 (Currently Amended) ~~The A method according to claims 5 or 6~~ for producing a ceramic sheet, the method comprising steps of:

sandwiching a first green sheet between spacers;

baking the first green sheet while the first green sheet is sandwiched between the spacers; and

producing a ceramic sheet having not more than 5 defects in an area of 900 mm² from the first green sheet, wherein

each of the spacers is either a second green sheet or a calcined sheet each comprising spherical ceramic particles having an average particle diameter of 0.1 to less than 5 μm as a main component, and

each of the spacers has a sintering temperature of 50 to 300°C higher than the sintering temperature of the first green sheet.

Claim 8 (Currently Amended) ~~The A method according to claims 5 or 6~~ for producing a ceramic sheet, the method comprising steps of:

sandwiching a first green sheet between spacers;

baking the first green sheet while the first green sheet is sandwiched between the spacers; and

producing a ceramic sheet having not more than 5 defects in an area of 900 mm² from the first green sheet, wherein

each of the spacers is either a second green sheet or a calcined sheet each comprising spherical ceramic particles having an average particle diameter of 0.1 to less than 5 μm as a main component,

at least one of the spacers is the second green sheet, and

the baking calcines the at least one of the spacers to form at least one porous sheet having a porosity of 5 to 60%.

Claim 9 (Previously Presented): The method according to claims 5 or 6, wherein the spacers comprise the second green sheet; and the second green sheet includes ceramic particles 80 wt% or more of which are spherical ceramic particles having an average particle diameter of 0.1 to less than 5 μm .

Claim 10 (Previously Presented): The method according to claims 5 or 6, wherein the spacers comprise the calcined sheet; and the calcined sheet includes ceramic particles 80 wt% or more of which are spherical ceramic particles having an average particle diameter of 0.1 to less than 5 μm .

Claim 11 (Previously Presented): The method according to claim 9, wherein the spherical ceramic particles have a ratio of a major axis thereof relative to a minor axis thereof of 1 to 3.

Claim 12 (Previously Presented): The method according to claim 10, wherein the spherical ceramic particles have a ratio of a major axis thereof relative to a minor axis thereof of 1 to 3.

Claim 13 (Canceled)

Claim 14 (New) The method according to claim 5 or 6, wherein the calcined sheet is obtained by calcining a second green sheet at a temperature that is 50 to 300°C lower than a sintering temperature of the second green sheet.

SUPPORT FOR THE AMENDMENT

This Amendment amends Claims 5 and 7-8; and adds new Claim 14. Support for the amendments is found in the specification and claims as originally filed. In particular, support for Claims 5 and 7-8 is found in Claim 5. Support for Claim 14 is found in the specification at least at page 20, lines 1-3. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 5-12 and 14 will be pending in this application. Claims 5, 7 and 8 are independent.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

Applicants thank the Examiner for the indication that Claim 7 is allowable. Advisory Action dated October 7, 2004. However, for the reasons given below Applicants respectfully submit that all of the pending claims are allowable.

Claims 5-6 and 9-10 are rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 5,955,392 ("Takeuchi"). In addition, Claims 11-12 are rejected under 35 U.S.C. § 103(a) over Takeuchi. Claims 11-12 are also rejected under 35 U.S.C. § 103(a) over Takeuchi in view of JP 8151271 ("Kazuo").

The invention of independent Claim 5 provides a method for producing a ceramic sheet in which a first green sheet is baked while being sandwiched between spacers, where each of the spacers is a calcined sheet comprising spherical ceramic particles having an average particle diameter of 0.1 to less than 5 μm as a main component. As a result, the handling of fine spherical ceramic particles is facilitated and there is no possible damage on the surface of the first green sheet. Furthermore, the spacer can keep its calcined state and

porosity until the first green sheet is completely baked, so that decomposition gas generated during the baking of the first green sheet can easily be removed from the first green sheet through the pores of the spacers. In addition, the spacers have a low bulk density during the baking of the first green sheet. This lowers the friction resistance between the first green sheet and the spacers, so that when the first green sheet shrinks during baking the first green sheet slides smoothly on the surface of the spacers without forming surface flaws.

In contrast to Claim 5, Takeuchi discloses a method of producing a ceramic sheet in which a "ceramic green sheet may be laminated with **other green sheets** and fired".

Takeuchi at column 6, lines 8-9.

Kazuo discloses a ceramic sheet obtained by firing a green sheet placed on or between **porous sheets**. Kazuo at English-language abstract.

However, the cited prior art fails to suggest the independent Claim 5 limitations of "sandwiching a first green sheet between spacers; baking the first green sheet while the first green sheet is sandwiched between the spacers; and producing a ceramic sheet ... , wherein **prior to the baking** each of the spacers is a **calcined sheet**". Thus, the prior art rejections should be withdrawn.

The Advisory Action dated October 7, 2004, indicates that independent Claim 8 is rejected. However, the Final Rejection dated April 21, 2004, does not reject Claim 8. Applicants respectfully request the basis for the rejection of Claim 8.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

A handwritten signature in cursive script, reading "Corwin Paul Umbach".

Corwin P. Umbach, Ph.D.
Registration No. 40,211

Customer Number

22850

(703) 413-3000

Fax #: (703) 413-2220

NFO/CPU:sjh